Press Release

More safety and precision in the third dimension

Morita offers intelligent CBCT solutions for endodontic practices

Today, cone-beam computed tomography (CBCT) has become an indispensable part of many endodontic practices. This technology not only supports optimal treatment planning, it also helps dental professionals give comprehensive factual information to patients using the CBCT images. Another advantage of CBCT is that, contrary to conventional radiological diagnosis, it can provide a three-dimensional representation of the dental arch without any distortion. Morita is a leading manufacturer of X-ray units and as such the company strives to achieve the highest standards in connection with CBCT – this includes innovative hardware and software solutions that provide even more diagnostic precision.

In connection with endodontic procedures, even very fine structures have to be detected, for example the number, location and shape of root canals; or, to take another example, clinicians need to be aware of complex anatomical situations when carrying out apical microsurgery. Therefore, the X-ray system used has to be as precise as possible. In this respect, Morita applies state-of-the-art 3D X-ray technology: The new Veraview X800 provides brilliant image quality with a voxel size of 80 µm and resolution of 2.5 LP/mm MTF 10%, which is unique for combination X-ray systems. Highly precise 3D, panoramic and cephalometric images – both in 180° and 360° modes – can be obtained with this unit. The wide spectrum provided by eleven fields of view (FOV) covers many special fields of dentistry - from oral and maxillofacial surgery, implantology, periodontology, endodontics, orthodontics up to general dentistry.

New functions for more diagnostic safety

In order to further increase the sharpness of the images and to reduce artifacts and distortion to a minimum, Veraview X800 uses a horizontal X-ray beam that generates highly detailed 3D images: If the clinician shifts the horizontal X-ray beam by 5 degrees, the disruptive shadows on the hard palate are suppressed in panoramic imaging. Afterwards, the X-rays can be recalculated with the zoom reconstruction function; for example, a 80 µm voxel image can be reconstructed from a 125 µm voxel image without having to take new scans. For this reason, the system can be adjusted even more precisely, which, apart from everything else, keeps the patient dosage "As Low As Reasonably Achievable (ALARA principle). In addition, a panorama scout is also available, with which the user can define the "region of interest" of the CVCT scan exactly. Once set, the C-arm automatically moves to the optimal position for taking the 3D X-ray.

Panoramic imaging also has been improved: the Adaptive Focal Point (AFP) analyses several layers of acquired images, chooses the optimal panoramic layer for each region and pieces them together to form a new image. The Adaptive Gray Scale (AGS) function ensures perfect contrast. Furthermore, users can adapt the image layer to the dental arch (options: narrow, standard and wide*)*. In addition, the unit has a special function for taking images of the small jaws of children (Pediatric Panorama). This function ensures targeted and fast imaging so that the dosage is reduced. As far as cephalometric imaging is concerned, users can choose from three different scans in order to reduce the radiation exposure of patients.

The new features of Veraview X800 are combined with the time-proven, unique R100 Reuleaux triangle-shaped field of view, which scans only the region needed for making the diagnosis and, thus, significantly reduces radiation exposure as compared to the conventional cylindrical shape. Moreover, dentists can evaluate the X-rays whenever and wherever they want with the web-based data management system i-Dixel Web – it works simply and directly with any Web browser. i-Dixel Web provides complete i-Dixel functionality; no additional software has to be installed.

Everything you need for endodontic treatments

Dentists will have a complete range of equipment when using the other innovative solutions developed by Morita, such as the new cordless endodontic motor with the TriAuto ZX2 apex locator (equipped with the completely new “Optimum Glide Path” function, with which the glide path can be mechanically produced very quickly and very safely, and the proven OTR function (Optimum Torque Reverse), the modular endodontic system DentaPort ZX Set OTR (comprising the apex locator DentaPort Root ZX, preparation motor DentaPort TriAuto and a polymerisation lamp), the innovative Er:YAG laser AdvErL Evo and such ergonomic treatment units as SIGNO G10 II or Soaric with apex locator or microscope. Based on these recent developments, Morita upholds its reputation for providing intelligent CBCT solutions for endodontics, more application comfort and maximum patient satisfaction.

For more information about Morita’s innovative solutions for endodontic practices, see www.morita.com/europe.